

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1-15 (Cancelled)

Claim 16 (New) A method of identifying non real-time data transmitted through a communications network, the method comprising:

receiving at a data processor data from a data source of a plurality of data sources;

formatting the data to include a data source identifier corresponding to the data source and a system identifier corresponding to the data processor;

transmitting the formatted data to a client site via the communications network;

determining the operational status of the data source;

generating a data source status signal including the data source identifier, the data source status signal being generated based on the operational status of the data source; and

transmitting the data source status signal to the client site via the communications network.

Claim 17 (New) The method of claim 16 wherein the step of generating a data source status signal includes determining whether the data source is operating normally.

Claim 18 (New) The method of claim 16, further comprising receiving a heartbeat signal from the data source.

Claim 19 (New) The method of claim 16, further comprising:

generating a system heartbeat signal including the system identifier; and

transmitting the system heartbeat signal at a predetermined interval to the client site.

Claim 20 (New) The method of claim 19, wherein the system heartbeat signal includes a data source heartbeat signal received from the data source.

Claim 21 (New) A method of alerting a user to the existence of non real-time information including the steps of:

receiving, at a user's computer, data from a remote source;

receiving, at the user's computer, status information which describes the data as being real-time or non real-time as determined by the operational status of a data source corresponding to the data; and

displaying on the user's computer the status of the data as being real-time or non real-time.

Claim 22 (New) The method of claim 21 wherein for the step of receiving status information, the status information describes the data as real-time when the data source is operating normally and describes the information as non real-time when the data source is not operating normally.

Claim 23 (New) The method of claim 21 further comprising:

receiving from the remote source at the user's computer a heartbeat signal within a predetermined period of time;

wherein the step of displaying includes displaying the status of the data as being real-time.

Claim 24 (New) The method of claim 23, wherein the heartbeat signal includes a system identifier associated with the remote source.

Claim 25 (New) The method of claim 24, wherein the heartbeat signal includes a data source identifier identifying the data source.

Claim 26 (New) The method of claim 21 further comprising:

monitoring a communications network for reception of a heartbeat signal including a system identifier associated with the remote source;

wherein, on condition the heartbeat signal is not received within a predetermined period of time, the step of displaying the status includes displaying the status of the data as being non real-time.

Claim 27 (New) The method of claim 26 wherein, on condition the heartbeat signal is not received within a predetermined period of time, the method further comprises displaying the status of all data associated the system identifier as being non real-time.

Claim 28 (New) The method of claim 26 wherein the heartbeat signal further includes a data source identifier associated with the data source, and on condition the heartbeat signal is not received within a predetermined period of time, the method further comprises displaying the status of all data associated with the data source as being non real-time.

Claim 29 (New) The method of claim 21, further comprising:
extracting the data source identifier from the received data; and
comparing the extracted data source identifier with stored status data to select a real-time or non real-time display mode for said received data, said stored status being derived from the status information.

Claim 30 (New) A data collection system comprising:
a transmitter in communication with a communications network; and
a data processor in communication with the transmitter, the data processor performing steps comprising:
receiving data from a data source of a plurality of data sources;
formatting the data to include a data source identifier corresponding to the data source and a system identifier corresponding to the data processor;

transmitting via the transmitter the formatted data to a client site via the communications network;

determining the operational status of the data source;

generating a data source status signal including the data source identifier, the data source status signal being generated based on the operational status of the data source; and

transmitting via the transmitter the data source status signal to the client site via the communications network.

Claim 31 (New) The data collection system of claim 30 further comprising a status code generator generating a data source status signal in response to a control signal from the data processor, wherein the step of generating a data source status signal includes automatically generating the control signal for the status code generator in response to changes in the operating status of said data source.

Claim 32 (New) The data collection system of claim 30, wherein the step of generating a data source status signal includes determining whether the data source is operating normally.

Claim 33 (New) The data collection system of claim 30, wherein the data processor further performs the step of receiving a heartbeat signal from the data source.

Claim 34 (New) The data collection system of claim 30 further comprising a heartbeat generator for generating a system heartbeat signal including the system identifier and transmitting via the transmitter the system heartbeat signal at a predetermined interval to the client site via the communications network.

Claim 35 (New) The data collection system of claim 34 wherein the system heartbeat signal includes a data source heartbeat signal received from the data source.

Claim 36 (New) A computer-readable medium having computer-readable instructions for performing steps comprising:

receiving at a data processor data from a data source of a plurality of data sources;

formatting the data to include a data source identifier corresponding to the data source and a system identifier corresponding to the data processor;

transmitting the formatted data to a client site via a communications network;

determining the operational status of the data source;

generating a data source status signal including the data source identifier, the data source status signal being generated based on the operational status of the data source; and

transmitting the data source status signal to the client site via the communications network.

Claim 37 (New) The computer-readable medium of claim 36 wherein the step of generating a data source status signal includes determining whether the data source is operating normally.

Claim 38 (New) The computer-readable medium of claim 36, the computer-readable instructions for performing the further step comprising receiving a heartbeat signal from the data source.

Claim 39 (New) The computer-readable medium of claim 36, the computer-readable instructions for performing further steps comprising:

generating a system heartbeat signal including the system identifier; and

transmitting the system heartbeat signal at a predetermined interval to the client site.

Claim 40 (New) The computer-readable medium of claim 39, wherein the system heartbeat signal includes a data source heartbeat signal received from the data source.

Claim 41 (New) A terminal for alerting a user to the existence of non real-time information, the terminal comprising:

 a transmitter/receiver in communication with a communications network;
 a display; and
 a processor in communication with the transmitter/receiver and the display, the processor performing steps comprising:
 receiving via the transmitter/receiver data from a remote source;
 receiving via the transmitter/receiver status information which describes the data as being real-time or non real-time as determined by the operational status of a data source corresponding to the data; and
 displaying via the display the status of the data as being real-time or non real-time.

Claim 42 (New) The terminal of claim 41 wherein for the step of receiving information, the status information describes the data as real-time when the data source is operating normally and describes the information as non real-time when the data source is not operating normally.

Claim 43 (New) The terminal of claim 41, wherein the processor performs further steps comprising:

 receiving via the transmitter/receiver from the remote source a heartbeat signal within a predetermined period of time;
 wherein the step of displaying includes displaying via the display the status of the data as being real-time.

Claim 44 (New) The terminal of claim 43, wherein the heartbeat signal includes a system identifier associated with the remote source.

Claim 45 (New) The terminal of claim 44, wherein the heartbeat signal includes a data source identifier identifying the data source.

Claim 46 (New) The terminal of claim 41 further comprising a heart beat detector circuit for monitoring a communications network via the transmitter/receiver for reception of a heartbeat signal including a system identifier associated with the remote source, wherein, on condition the heartbeat signal is not received within a predetermined period of time, the step of displaying status performed by the processor includes displaying via the display the status of the data as being non real-time.

Claim 47 (New) The terminal of claim 46 wherein, on condition the heartbeat signal is not received within a predetermined period of time, the processor performs the further step comprising displaying via the display the status of all data associated the system identifier as being non real-time.

Claim 48 (New) The terminal of claim 46 wherein the heartbeat signal further includes a data source identifier associated with the data source, and on condition the heartbeat signal is not received within a predetermined period of time, the processor performs the further step comprising displaying via the display the status of all data associated with the data source as being non real-time.

Claim 49 (New) The terminal of claim 41, wherein the processor performs further steps comprising:

extracting the data source identifier from the received data; and

comparing the extracted data source identifier with stored status data to select a real-time or non real-time display mode for said received data, said stored status being derived from the status information.

Claim 50 (New) A computer-readable medium having computer-readable instructions for performing steps comprising:

receiving, at a user's computer, data from a remote source;

receiving, at the user's computer, status information which describes the data as being real-time or non real-time as determined by the operational status of a data source corresponding to the data; and

displaying on the user's computer the status of the data as being real-time or non real-time.

Claim 51 (New) The computer-readable medium of claim 50, wherein for the step of receiving status information, the status information describes the data as real-time when the data source is operating normally and describes the information as non real-time when the data source is not operating normally.

Claim 52 (New) The computer-readable medium of claim 50, the computer-readable instructions for performing the further step comprising:

receiving from the remote source at the user's computer a heartbeat signal within a predetermined period of time;

wherein the step of displaying includes displaying the status of the data as being real-time.

Claim 53 (New) The computer-readable medium of claim 52, wherein the heartbeat signal includes a system identifier associated with the remote source.

Claim 54 (New) The computer-readable medium of claim 52, wherein the heartbeat signal includes a data source identifier identifying the data source.

Claim 55 (New) The computer-readable medium of claim 50, the computer-readable instructions for performing the further step comprising:

monitoring a communications network for reception of a heartbeat signal including a system identifier associated with the remote source;

wherein, on condition the heartbeat signal is not received within a predetermined period of time, the step of displaying the status includes displaying the status of the data as being non real-time.

Claim 56 (New) The computer-readable medium of claim 55, the computer-readable instructions for performing the further step of displaying the status of all data associated with the system identifier as being non real-time when the heartbeat signal is not received within a predetermined period of time.

Claim 57 (New) The computer-readable medium of claim 55 wherein the heartbeat signal further includes a data source identifier associated with the data source, and the computer-readable instructions perform the further step of displaying the status of all data associated with the data source as being non real-time when the heartbeat signal is not received within a predetermined period of time.

Claim 58 (New) The computer-readable medium of claim 50, the computer-readable instructions for performing further steps comprising:

extracting the data source identifier from the received data; and

comparing the extracted data source identifier with stored status data to select a real-time or non real-time display mode for said received data, said stored status being derived from the status information.